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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,586	11/21/2003	Steven R. Sedlmayr	AUO1017	3219

7590 12/07/2004
Law Office of Roxana H. Yang
P.O. Box 400
Los Altos, CA 94023

EXAMINER

FINEMAN, LEE A

ART UNIT	PAPER NUMBER
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2872

DATE MAILED: 12/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/719,586	SEDLMAYR, STEVEN R.	
	Examiner	Art Unit	
	Lee Fineman	2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 158-173 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 158-173 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/12/04</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is in response to remarks filed 12 October. Claims 158-173 are pending.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 158-159 and 166-167 are rejected under 35 U.S.C. 102(e) as being anticipated by Kurematsu et al., U.S. Patent No. 5,153,752.

Kurematsu et al. disclose a system (fig. 2) and method of producing a modulated beam of light suitable for projection of video images, comprising [a] means (20) for producing an initial beam of light; [b] means (21, 22, 23 and 24) for separating the initial beam of light into two or more separate beams of colors (R, G, B) whereby each separate beam of color has the same single selected predetermined orientation (S) of a chosen component of the electric field vectors as that of the other separate beams of color and each separate beam of color having a color different from the other separate beams of colors; [c] means (25R, 25G, 25B) for altering the single selected predetermined orientation of the chosen component of the electric field vectors of a plurality of portions of each separate beam of color by passing a plurality of portions of each separate beam of color through a respective one of a plurality of altering means whereby the

single selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each separate beam of color is altered in response to a stimulus means by applying a signal means to the stimulus means in a predetermined manner as the plurality of portions of each of the substantially separate beams of electromagnetic energy passes through the respective one of the plurality of means for altering the single selected predetermined orientation of a chosen component of the electric field vectors (column 6, lines 12-20 and column 7, lines 11-26); [d] means (24) for combining altered separate beams of color into a single collinear color beam without substantially changing the altered selected predetermined orientation of the chosen component of the electric field vectors of the plurality of portions of each of the separate beam of color; [e] means (21, 22) for resolving from the single collinear color beam a first resolved color beam (P) having substantially a first single selected predetermined orientation of a chosen component of the electric field vectors and second resolved color beam (S) having substantially a second single selected predetermined, orientation of a chosen component of the electric field vectors, whereby the first and second single selected predetermined orientation of the chosen component of the electric field vectors are different from one another; and means (26) for passing one of the resolved color beams (P) to a projection means (not shown, column 7, lines 54-55). The method of utilizing the structure of the claim is inherent therein.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 160, 163, 168 and 171 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurematsu et al. in view of Konno et al., U.S. Patent No 4,497,015.

Kurematsu et al. disclose the claimed invention except for the means for producing the initial beam including producing an initial collimated rectangular beam of light having a substantially uniform flux intensity substantially across the initial beam of light and a rectangular cross sectional area. Konno et al. disclose a light illumination device (fig. 5) which produces a beam (at M) that is collimated and has a substantially uniform flux intensity substantially across the initial beam of light (column 5, lines 43-52) and a rectangular cross sectional area (using lens element 102, fig. 3; column 3, lines 5-8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the light source of Kurematsu et al. with that of Konno et al. to have a more uniform intensity light beam and provide a more consistent image. The method of utilizing the structure of the claim is inherent therein.

5. Claims 161-162, 164-165, 169-170 and 172-173 rejected under 35 U.S.C. 103(a) as being unpatentable over Kurematsu et al. in view of Konno et al. as applied to claims 160, 163, 168 and 171 above, and further in view of Ooi et al., U.S. Patent No. 5,245,449.

Kurematsu et al. in view of Konno et al. as applied to claims 160, 163, 168 and 171 above disclose the claimed invention except for a means for removing from the initial collimated beam of light at least a portion of ultraviolet and at least a portion of infrared to produce an initial collimated beam of white light and means for directing the removed portions to a beam stop whereby the removed ultraviolet and infrared is absorbed and in which the means for

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separating the initial beam of light into two or more separate beams of light includes means for adjusting the color by removing at least a predetermined portion of color of at least one of the separate collimated beams of color and directing the removed portion to a beam stop whereby the removed portion is absorbed. Ooi et al. teach a projection system (fig. 7) in which the light source includes a means (column 12, line 13) for removing from the initial collimated beam of light at least a portion of ultraviolet and at least a portion of infrared to produce an initial collimated beam of white light and means for directing the removed portions to a beam stop whereby the removed ultraviolet and infrared is absorbed (in so far as the filters are the beam stop). It would have been obvious to one of ordinary skill in the art at the time the invention was made to add a means for filtering out ultraviolet and infrared light to the system of Kurematsu et al. in view of Konno et al., as suggested by Ooi et al., to reduce the heat of the system (Ooi, column 12, line 14). Ooi et al. further teach the system including a means (32A, 32B, 35A, 35B, 35C) for separating the initial beam of light into two or more separate beams of light that includes means (35A, 35B, 35C) for adjusting the color by removing at least a predetermined portion of color of at least one of the separate collimated beams of color and directing the removed portion to a beam stop whereby the removed portion is absorbed (column 17, line 42-column 18, line 28 and the filters are the beam stop). It would have been obvious to one of ordinary skill in the art at the time the invention was made to add a means to remove a portion of the colored light to the system of Kurematsu et al. in view of Konno et al., as suggested by Ooi et al., to obtain high color purity in the display (Ooi, column 18, lines 32-35).

Response to Arguments

6. Applicant's arguments filed 12 October 2004 have been fully considered but they are not persuasive.

Applicant argues that Kurematsu does not disclose steps [d] and [e] of the invention because the light beams returning from the cross dichroic prism 24 into beam splitters 21 and 23 are two separate beam of combined light rather than combined into a single beam of collinear light. The examiner respectfully disagrees and refers to the applicant's own disclosure (figs. 3 and 5; page 60, line 8-page 61, line 8) as evidence that beams that emanate from the same direction (53, 58 and 60) and aligned next to each other are considered combined into a single beam. Therefore the light beams returning from the cross dichroic prism 24 into beam splitters 21 and 23 are a single collinear beam as claimed in step [d] and the beam is resolved into two resolved beams by beam splitters 21 and 23 as claimed in step [e].

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lee Fineman whose telephone number is (571) 272-2313. The examiner can normally be reached on Monday - Friday 7:30 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



LAF
November 30, 2004


MARK A. ROBINSON
PRIMARY EXAMINER